

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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| Applicant's or agent's file reference 4F-167 CAS 4 | FOR FURTHER ACTION | See Form PCT/IPEA/416 |
| International application No. PCT/FR2004/000240 | International filing date (<i>day/month/year</i>) 03.02.2004 | Priority date (<i>day/month/year</i>) 04.02.2003 |
| International Patent Classification (IPC) or national classification and IPC A61K 7/48 | | |
| Applicant ROBERT WAN HOLDING | | |

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|----|---|--|
| 1. | This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. | |
| 2. | This REPORT consists of a total of <u>6</u> sheets, including this cover sheet. | |
| 3. | This report is also accompanied by ANNEXES, comprising: a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows: <input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions). | |
| 4. | This report contains indications relating to the following items: <input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application | |

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| Date of submission of the demand 03-08-2004 | Date of completion of this report 01-03-2005 |
| Name and mailing address of the IPEA/ Facsimile No. | Authorized officer Telephone No. |

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/FR2004/000240

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
 - ☐ publication of the international application (Rule 12.4)
 - ☐ international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☐ the international application as originally filed/furnished
- ☒ the description:

pages 1-3 _____ as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

- ☒ the claims:
- nos. 1-4 _____ as originally filed/furnished

nos.* _____ as amended (together with any statement) under Article 19

nos.* _____ received by this Authority on _____

nos.* _____ received by this Authority on _____

- ☐ the drawings:
- sheets _____ as originally filed/furnished

sheets* _____ received by this Authority on _____

sheets* _____ received by this Authority on _____

- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing (*specify*): _____

☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages _____

☐ the claims, nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing (*specify*): _____

☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/FR2004/000240

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | | |
|-------------------------------|--------|-----|-----|
| Novelty (N) | Claims | 2-4 | YES |
| | Claims | 1 | NO |
| Inventive step (IS) | Claims | | YES |
| | Claims | 1-4 | NO |
| Industrial applicability (IA) | Claims | 1-4 | YES |
| | Claims | | NO |

2. Citations and explanations (Rule 70.7)

1. In the present report, reference is made to the following documents:

D1: DUNSTAN ET AL.: "The effect of lyophilization on the solvent extraction of lipid classes, fatty acids and sterols from the oyster crassostrea gigas" LIPIDS, vol. 28, no. 10, 1993, pages 937-944, XP0008023254 USA;

D2: PATENT ABSTRACTS OF JAPAN, vol. 1996, no. 11, 29 November 1996 (1996-11-29) & JP 8 175950 A (MIKIMOTO PHARMACEUT CO LTD), 9 July 1996 (1996-07-09);

D3: DATABASE WPI Section Ch, Week 199032 Derwent Publications Ltd., London, GB; Class D21, AN 1990-242898 XP002257518 & JP 02 169509 A (MIKIMOTO SEIYAKU KK) 29 June 1990 (1990-06-29);

D4: FR-A-2 799 125 (CENTRE NAT RECH SCIENT)
6 April 2001 (2001-04-06).

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Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

2. Novelty (PCT Article 33(1) and (2)):

- The subject matter of claim 1 is not considered to be novel (PCT Article 33(1) and (2)), for the following reasons:

Documents D1, D2 and D3 each describe a method for extracting a lipid active principle from a solid material taken from a mother-of-pearl mollusc, which method is characterised in that it comprises steps of grinding the mother-of-pearl, contacting the resulting powder with a lipid solvent, separating the solvent and extracting the lipid active principle by means of solvent evaporation (cf. D1, the whole document; D2 and D3, the abstracts).

It follows that documents D1, D2 and D3 deprive the subject matter of claim 1 of novelty.

3. Inventive step (PCT Article 33(1) and (3))

- The subject matter of dependent claims 2-4 is not considered to be inventive (PCT Article 33(1) and (3)), for the following reasons:
- The problem that the present application is intended to solve is that of providing an inexpensive method for extracting an active principle from mother-of-pearl molluscs.

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Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

- The solution proposed by the present invention is an extraction method characterised in that it comprises steps of grinding the mother-of-pearl into a fine powder, contacting the resulting powder with a lipid solvent, separating the solvent and extracting the lipid active principle by means of solvent evaporation.

Document D3, which is considered to be the closest prior art, describes a method for extracting a lipid active principle from a solid material taken from a mother-of-pearl mollusc, which method is characterised in that it comprises steps of grinding the mother-of-pearl, contacting the ground material with a lipid solvent, separating the solvent and extracting the lipid active principle by means of solvent evaporation.

- The difference between the subject matter of the claims and document D3 is that the mother-of-pearl is ground into a fine powder that has a mean particle size of less than 20 μm and, preferably, of around 8 μm .

Document D4 describes a method for extracting active principles from the mother-of-pearl of certain mother-of-pearl molluscs (*Pinctada maxima*), wherein the particle size of the mother-of-pearl powder used is between 1 and 300 μm and, preferably, between 15 and 50 μm . It is

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Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

stipulated in document D3 that the finer the mother-of-pearl powder, the higher the resulting yields of active principles (cf. D4, page 4, lines 1-28).

- It follows that the objective problem in the present application can be considered to be that of enhancing a method for extracting active principles by grinding the material into a fine powder that has a predetermined particle size.

The solution to this problem, as proposed in claims 2-4, appears to be obvious. As a result, the subject matter of claims 2-4 cannot be considered to involve an inventive step (PCT Article 33(1) and (3)).